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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 1

Complete If Known	
Application Number	~~N/A~~ 10/685,962
Filing Date	~~N/A~~ 10/15/2003
First Named Inventor	Leonid Matsiev
Group Art Unit	~~N/A~~ 2856
Examiner Name	~~N/A~~ Miller, Rose
Attorney Docket Number	1012-122C4

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number	Kind Code[2] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
RM		3,622,968		Silverman	11/1971	367/9
		3,718,032		Gray	2/1973	73/1626
		3,778,757		Houston	12/1973	367/11
		4,342,936		Marcus et al.	08/1982	310/330
		4,349,881		November et al.	09/14/1982	702/54
		4,370,662		Hou et al.	01/1983	347/75
		4,391,338		Patashnick et al.	07/05/1983	177/210 FP
		4,526,480		Ward	07/1985	374/117
		4,543,829		Lerch	10/1985	73/626
		4,721,874		Emmert	01/26/1988	310/333
		4,734,609		Jasime	03/29/1988	310/315
		4,741,200		Hammerle	05/03/1988	73/54.25
		4,779,451		Ezawa et al.	10/1988	73/53.01
		4,812,698		Chida et al.	03/1989	310/330
		4,910,523		Huguenin et al.	03/1990	342/179
		5,179,028		Valie et al.	01/12/1993	436/524
		5,191,791		Gerardi et al.	03/1993	73/1 58 R
		5,224,174		Schneider et al.	06/1993	382/154 124
		5,253,530		Letcher, III	10/1993	73/602
↓		5,201,215		Granstaff et al	04/13/1993	73/54.41

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Examiner Initials*	Cite No.[1]	Foreign Patent Document Office[3]	Number[4]	Kind Code[5] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Class/Sub ~~Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear~~	T[6]
RM			EP 0102490			03/14/1984	—	
			EP 0282251			09/14/1988	—	
↓			EP 0676638			10/11/1995	—	

Examiner Signature	Rose Miller	Date Considered	4/30/04

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[1] Unique citation designation number. [2] See attached Kinds of U.S. Patent Documents. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

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Filing Date	~~N/A~~ 10/15/2003
First Named Inventor	Leonid Matsiev
Group Art Unit	~~N/A~~ 2856
Examiner Name	~~N/A~~ Miller
Attorney Docket Number	1012-122C4

U.S. PATENT DOCUMENTS

Class/Subclass

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RMM		5,357,964		Spivey et al.	10/1994	
		5,375,470		Matsushima et al.	12/1994	
		5,454,045		Perkins et al.	09/1995	
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		5,488,866		Ravel et al.	2/1996	
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		5,852,229		Josse et al.	12/1998	
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Sheet 1 of 1

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Application Number	~~N/A~~ 10/085,962
Filing Date	~~N/A~~ 10/15/2002
First Named Inventor	Leonid Matsiev
Group Art Unit	~~N/A~~ 2856
Examiner Name	~~N/A~~ Miller
Attorney Docket Number	1012-122C4

U.S. PATENT DOCUMENTS

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KMA		4,760,351		Newell et al.	7/1988	
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Examiner Initials*	Cite No.[1]	Foreign Patent Document Office[3]	Number[4]	Kind Code[5] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

Examiner Signature	Rose Miller	Date Considered	4/30/04

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Sheet 1 of 1

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Application Number	~~N/A~~ 10/085,962
Filing Date	~~N/A~~ 10/15/2003
First Named Inventor	Leonid Matsiev
Art Unit	~~N/A~~ 2857
Examiner Name	~~N/A~~ Miller
Attorney Docket Number	1012-122C4

U.S. PATENT DOCUMENTS

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Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	~~Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear~~
		US-5,338,416	08/16/1994	Mlcak et al.	
		US-5,464,509	11/07/1995	Mlcak et al.	
		US-6,275,137	08/14/2001	Doppalapudi et al.	
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		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] -Number[4] -Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	4/30/04

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 0

Complete if Known	
Application Number	~~N/A~~ 10/685,962
Filing Date	~~N/A~~ 10/15/2003
First Named Inventor	Leonid Matsiev
Group Art Unit	~~N/A~~ 2856
Examiner Name	~~N/A~~ Miller
Attorney Docket Number	1012-122C4

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
RM		FISCH, M.R., et al., "Improved Acoustic Viscosimeter Technique", J. Acoust. Soc. Am., September 1976, pp. 623-625, v. 60, No. 3.	
RM		HIAVAY, J. and G.G. Guilbault, "Applications of the Piezoelectric Crystal Detector in Analytical Chemistry", Analytical Chemistry, November 1977, pp. 1890-1898, v. 49, No. 13.	
RM		KANAZAWA, K. KEIJI and Joseph G. Gordon II, "The Oscillation Frequency of a Quartz Resonator in Contact with a Liquid", Analytica Chimica Acta, 1985, pp. 99-105, Elsevier Science Publishers B.V., Amsterdam.	
RM		KIPLING, ARLIN L and Michael Thompson, "Network Analysis Method Applied to Liquid-Phase Acoustic Wave Sensors", Anal. Chem., 1990, pp. 1514-1519, 62.	
RM		MICHELS, A. et al., "1 MHz Quartz Length Extension Resonator as a Probe for Scanning Near-Field Acoustic Microscopy", Thin Solid Films, 1995, pp. 172-175, 264.	
RM		MURAMATSU, HIROSHI et al., "Computation of Equivalent Circuit Parameters of Quartz Crystals in Contact with Liquids and Study of Liquid Properties", Anal. Chem., 1988, pp. 2142-2146, 60.	
RM		MURAMATSU, H. et al., "A Quartz Crystal Viscosity Sensor for Monitoring Coagulation Reaction and Its Application to a Multichannel Coagulation Detector", Biosensors & Bioelectronics, 1991, pp. 353-358, 6, Elsevier Science Publishers Ltd. England.	
RM		NOMURA, T. and M. Iijima, "Electrolytic Determination of Nanomolar Concentrations of Silver in Solution with a Piezoelectric Quartz Crystal", Analytica Chimica Acta, 1981, pp. 97-102, 131, Elsevier Scientific Publising Company.	
RM		PCT International Search Report, dated 27 April 1998.	
RM		Trolier et al., "Preparation of Chemically Etched Piezoelectric Resonators for Density Meters and Viscometers", Mat. Res. Bull., Vol. 22, pp. 1267-1274 (1987)	
RM		News Release entitled "Field Trials of the Viscosity & Fluid Density Tool (VFD) and webpage excerpt (2 pages)	

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Filing Date	~~N/A~~ 10/15/2003
First Named Inventor	Matsiev et al.
Group Art Unit	2856
Examiner Name	~~N/A~~ Miller
Attorney Docket Number	1012-122C4

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
		Copending Application Serial No. 10/201,181, filed 07/23/2002, entitled Method and Apparatus for Characterizing Materials by Using a Mechanical Resonator (1012-122C2)	
		NESBITT W. HAGOOD IV et al., "Development of Micro-Hydraulic Transducer Technology", 10th International Conference on Adaptive Structures and Technologies, Oct. 11-13, 1999, Paris, France.	

Examiner Signature		Date Considered	4/30/04

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